

# Materials guide



See the surprising ways that everyday materials can be rescued and reshaped into new items — and learn to see waste and litter with fresh eyes, renewing both our world and our hearts

Card & paper

A biodegradable material perfect for packaging, made from pulp and fibres. . Paper is separated into different grades for recycling, depending on quality and amount of spoiling. The recycled paper is wound on to huge rolls before being cut and dispatched to make new products we use everyday.

Mixed metals

Metal is super strong and never loses its qualities, no matter how many times it's recycled. Aluminium makes our soda cans, while steel makes the shiny ring pulls. Britain recycles so much metal that 90% is sent abroad for reuse! Best of all, metal is 100% recyclable—forever and ever—making it great to rescue.

Soft plastic

Take the test. Now, scrunch it up tight – if it pings back, it indicate it's a soft plastic. Ensure items are clean. Crisp packets are usually made from layers of plastic and aluminium. These plastics can be recycled to create longer life products such as fence posts, cable covers and children's playground.

Hard plastic

Plastic comes from natural stuff like oil, gas, salt, coal, and plants, made through special processes called polymerisation or condensation. Once made, it isn't biodegradable and can cause big problems for the environment. Plastic can be soft, bendy, or moulded into hard shapes.

Mixed glass

Glass is a shiny, hard material used in windows, mirrors, jars, and bottles. It's made by melting sand with soda and lime, then cooling it quickly. Glass is endlessly recycled with no loss of quality, which make it a great way to save energy from mining whilst more importantly preserving the planet's raw materials.

Mixed foods

Anaerobic digestion is like nature's recycling machine. Inside a closed tank, tiny microbes munch on food scraps and animal poo without any oxygen. As they eat, they make methane gas that can power cars, heat homes, or make electricity. What's left turns into a rich fertiliser that helps farmers grow more food.

Bubble gum

Old bubblegum doesn't have to be rubbish! It can be cleaned, mixed with recycled plastics, and turned into tough new things like coffee cups, boots, playground gear, and even shoe soles. Bright pink gum bins help keep pavements tidy while saving councils money. Every piece recycled means fewer sticky splodges.

Dog waste

Even smelly dog poo can be recycled! In an anaerobic digester, microbes break it down to make methane fuel and rich fertiliser. You can compost at home too by mixing dog poo with grass clippings, food scraps, or even sawdust to feed the microbes. Their enzymes get to work, turning waste into safe, healthy soil with care and a little caution!

Vegetable oil

Old cooking or engine oil doesn't have to be wasted. Once it's cleaned, it can be turned into polish, cleaners, cosmetics, animal feed, or even biodiesel fuel. Some oils and food scraps can also break down to make gas, which can power homes and cars while cutting down on pollution.

Tobacco filters

Did you know cigarette butts are the most littered item in the world? They might look like cotton, but they're actually made from plastic fibres that don't break down. Ash and tobacco can be composted, while the filters can be transformed into mosquito-repelling products, toys, or stuffing for cushions.

Textiles

Synthetic fabrics, like polyester, shed microplastics that pollute the environment, so they need special handling. Natural fabrics like wool, cotton, and linen are safe for compost. Rags can be turned into building materials, scraps are great for art and zips and buttons can be reused.

Rubber

Car tyres are made from rubber, steel, and other materials. Instead of throwing them away, tyres can be broken down, cleaned, and ground into tiny pieces. These pieces can then be made into new things, like tyres again, bricks, fuel, speed bumps, or even soft playground floors for kids to play on safely.